Index, Volume 21

Author Index

A

Abdellatif M A, Genetic study of *Dandarawy* chickens. I. Heritabilities and genetic correlations of body weight and weight gain, 81 — ***, Genetic study on *Dandarawy* chickens. II. Heritability of live and carcass measurements, 199

Aguirre A — *See* Mazon L I *et al*, 269

Aguirrezabalaga I — *See* Sierra L.M *et al*, 427

B

Barillet F — *See* Boichard D *et al*, 205

Beaumont C, Restricted maximum likelihood estimation of genetic parameters for the first three lactations in the *Montbéliarde* dairy cattle breed, 493

Berland H M — *See* Cribiu E P *et al*, 555

Bidanel J P, Caritez J C & Legault C, Estimation of crossbreeding parameters between *Large White* and *Meishan* porcine breeds. I. Reproductive performance, 507

Bigot Y — *See* Periquet G *et al*, 107

Boichard D,Bouloc N, Ricordeau G, Piacere A & Barillet F, Genetic parameters for first lactation dairy traits in the *Alpine* and *Saanen* goat breeds, 205

Bolet G, Ollivier L & Dando P, Selection for prolificacy in the pig. I. Results of an eleven-generation selection experiment *(in French)*, 93

Bouloc N — *See* Boichard D *et al*, 205

Bouvet A — *See* Cribiu E P *et al*, 555

Brun J M — *See* Coudert P, 49

Buchberger J — *See* Graml R *et al*, 547

C

Capy P — *See* Carton Y *et al*, 437

Cariou M L — *See* Joly D *et al*, 283

Caritez J C — *See* Bidanel J P *et al*, 507

Carton Y, Capy P & Nappi A J, Genetic variability of host-parasite relationship traits: utilization of isofemale lines in a *Drosophila simulans* parasitic wasp, 437

Charles-Palabost L — *See* Sanchez-Prado J *et al*, 33

Charrier J — *See* Tixier-Boichard M *et al*, 217

Chatterjee S — *See* Singh B N, 447

Colleau J J — *See* Ducrocq V, 185 — ***, Impact of the use of bovine somatotropin (BST) on dairy cattle selection, 479

Comendador M A — ****See* Sierra L M, 253 — ***, Sierra L M & González M, Genetic architecture of tolerance to acrolein in *Drosophila melanogaster*, 415 — ****See* Sierra L.M *et al*, 427

Coquerelle G — *See* Monvoisin J L *et al*, 385

Costa Da Silva J — *See* Monvoisin J L *et al*, 385

Coudert P & Brun J M, Productivity and morbidity of rabbit breeding does: a comparison of 4 genotypes *(in French)*, 49

Cribiu E P — ****See* Matejka M, 11 — ***, Matejka M, Darre R, Durand V, Berland H M & Bouvet A, Identification of chromosomes involved in a Robertsonian translocation in cattle, 555

D

D'Agostino M G — *See* Di Berardino D *et al*, 1

Dando P — *See* Bolet G *et al*, 93

Darre R — *See* Cribiu E P *et al*, 555

David J R — *See* Joly D *et al*, 283

De La Fuente L F — *See* De Rochambeau H*et al*, 527

De Rochambeau H, De La Fuente L F, Rouvier R & Ouhayoun J, Selection experiment for post-weaning growth rate in rabbits *(in French)*, 527

Decuypere E — *See* Tixier-Boichard M *et al*, 217
Di Berardino D, Lioi M B, Miranda C, Di Milia A, D'Agostino M G & Matassino D, R-banding pattern of the prometaphase chromosomes of the domestic sheep *Ovis aries* L., 1
Di Milia A — *See* Di Berardino D *et al*, 1
Ducrocq V & Colleau J J, Optimum truncation points for independent culling level selection on a multivariate normal distribution, with an application to dairy cattle selection, 185
Durand V — *See* Cribiu E P *et al*, 555

E

Elsen J M — *See* Le Roy P *et al*, 341
Estomba A — *See* Mazon L I *et al*, 269

F

Fernando R L & Gianola D, Likelihood inferences in animal breeding under selection: a missing-data theory view point under selection: a missing-data theory view point, 399
Fernando R L & Grossman M, Marker assisted selection using best linear unbiased prediction, 467
Foulley J L & Im S, Probability statements about the transmitting ability of progeny-tested sires for an all-or-none trait with an application to twinning in cattle, 359

G

Garcia A — *See* López-Fanjul C *et al*, 159
Gellin J — *See* Yerle M, 249
Gianola D — *See* Im S *et al*, 399
González M — *See* Comendador M A *et al*, 415
Graml R, Weiss G, Buchberger J & Pirchner F, Different rates of synthesis of whey protein and casein by alleles of the β-lactoglobulin and α_{S1}-casein locus in cattle, 547
Grosclaude F — *See* Mahé M F, 127
Grossman M — *See* Fernando R L, 467
Guerra J — *See* López-Fanjul C *et al*, 159
Guy G — *See* Leclercq B *et al*, 69

H

Hamelin M H — *See* Periquet G *et al*, 107
Huybrechts L M — *See* Tixier-Boichard M *et al*, 217

I

Im S — ***See* Foulley J L, 359 — ***, Fernando R L & Gianola D, Likelihood inferences in animal breeding under selection: a missing-data theory view point under selection: a missing-data theory view point, 399

J

Joly D, Cariou M L, Lachaise D & David J R, Variation of sperm length and heteromorphism in drosophilid species, 283

K

Kai Hu — *See* Periquet G *et al*, 107
Katz M — *See* Sanchez-Prado J *et al*, 33
Knott S — *See* Le Roy P *et al*, 341
Kühn E — *See* Tixier-Boichard M *et al*, 217

L

Lachaise D — *See* Joly D *et al*, 283
Laulier M, Evolutionary genetics and systematics of the complex of species *Sphaeroma hookeri* Leach, *Sphaeroma levii* Argano and *Sphaeroma rugicauda* Leach (Crustacea, Isopoda Flabellifera). 2. Genetic variability, genetic distances and diagnostic alleles *(in French)*, 131
Lavie B — *See* Nevo E, 295
Le Roy P, Elsen J M & Knott S, Comparison of four statistical methods for detection of a major gene in a progeny test design, 341
Leclercq B, Guy G & Rudeaux F, Growth characteristics and lipid distribution in two lines of chicken selected for low or high abdominal fat, 69
Legault C — *See* Bidanel J P *et al*, 507

Lioi M B — *See* Di Berardino D *et al*, 1
Lostao C M — *See* Mazon L I *et al*, 269
López-Fanjul C, Guerra J & Garcia A, Changes in the distribution of the genetic variance of a quantitative trait in small populations of *Drosophila melanogaster*, 159

M

Mahé M F & Grosclaude F, α_{S1}-Cn^{D}, another allele associated with a decreased synthesis rate at the caprine α_{S1}-casein locus, 127
Marinković D — *See* Milošević M, 17
Martinez de Pancorbo M A — *See* Mazon L I *et al*, 269
Matassino D — *See* Di Berardino D *et al*, 1
Matejka M — *** & Cribiu E P, A new chromosomal variant in domestic sheep (*Ovis aries* L.) *(in French)*, 11 — ****See* Cribiu E P *et al*, 555
Mazon L I, Martinez de Pancorbo M A, Vicario A, Aguirre A I, Estomba A & Lostao C M, Selection in sympatric populations of *Cepaea*, 269
Merçot A — *See* Sanchez-Prado J *et al*, 33
Meyer K, Restricted maximum likelihood to estimate variance components for animal models with several random effects using a derivative-free algorithm, 317
Mérat P — *See* Monvoisin J L *et al*, 385
Milošević M & Marinković D, Activity of enzymes and fitness variation, 17
Miranda C — *See* Di Berardino D *et al*, 1
Mongin P — *See* Tixier-Boichard M *et al*, 217
Monvoisin J L, Mérat P, Coquerelle G & Costa Da Silva J, Effects associated with the "white egg shell" mutation in the Japanese quail *(in French)*, 385

N

Nappi A J — *See* Carton Y *et al*, 437
Nevo E & Lavie B, Selection of allozyme genotypes of two species of marine gastropods (genus *Littorina*) in experiments of environmental stress by nonionic detergent and crude oil-surfactant mixtures, 295

O

Ollivier L — *See* Bolet G *et al*, 93
Ouhayoun J — *See* De Rochambeau H*et al*, 527

P

Pecsenye K, A comparison of the level of enzyme polymorphism in cosmopolitan *Drosophila* species between populations collected in distilleries and in their surroundings in Hungary, 147
Periquet G, Hamelin M H, Bigot Y & Kai Hu, Presence of the deleted *hobo* element *Th* in Eurasian populations of *Drosophila melanogaster*, 107
Piacere A — *See* Boichard D *et al*, 205
Pirchner F — *See* Graml R *et al*, 547
Poivey J P — *See* Tai C *et al*, 377

R

Ricordeau G — *See* Boichard D *et al*, 205
Rouvier R — *See* Tai C *et al*, 377 — *See* De Rochambeau H*et al*, 527
Ruane J & Smith C, The genetic response possible in dairy cattle improvement by setting up a multiple ovulation and embryo transfer (MOET) nucleus scheme, 169
Rudeaux F — *See* Leclercq B *et al*, 69

S

Sanchez Prado J, Charles-Palabost L, Katz M & Merçot A, Linkage disequilibrium in French natural populations of *Drosophila melanogaster*, 33
Schaeffer L R — *See* Simianer H, 303
Sierra L M — *** & Comendador M A, Selection for acrolein tolerance in *Drosophila melanogaster*, 253 — ****See* Comendador M A *et al*, 415 — ***, Comendador M A & Aguirrezabalaga I, Mechanisms of resistance to acrolein in *Drosophila melanogaster*, 427
Simianer H & Schaeffer L R, Estimation of covariance components between one continuous and one binary trait, 303
Singh B N & Chatterjee S, Rare-male mating advantage in *Drosophila ananassae*, 447
Smith C — *See* Ruane J, 169

Smith S P — *See* Tier B, 457

T

Tai C, Rouvier R & Poivey J P, Genetic parameters of some growth and egg production traits in laying Brown Tsaiya *(Anas platyrynchos)*, 377
Tier B & Smith S P, Use of sparse matrix absorption in animal breeding, 457
Tixier-Boichard M, Huybrechts L M, Kühn E, Decuypere E, Charrier J & Mongin P, Physiological studies on the sex-linked dwarfism of the fowl: a review on the search for the gene's primary effect, 217
Tsakas S C, Species *versus* gene selection, 247

V

Vicario A — *See* Mazon L I *et al*, 269
Vögeli P, Position of the *Phi* and *Po2* loci in the *Hal* linkage group in pigs, 119

W

Weiss G — *See* Graml R *et al*, 547

Y

Yerle M & Gellin J, Localization of leucocyte interferon gene in the q2.5 region of pig chromosome1 by *in situ* hybridization, 249

Index, Volume 21

Key word Index

A

Acrolein — Selection for acrolein tolerance in *Drosophila melanogaster*, 253 — Genetic architecture of tolerance to acrolein in *Drosophila melanogaster*, 415 — Mechanisms of resistance to acrolein in *Drosophila melanogaster*, 427

Additional random effects — Restricted maximum likelihood to estimate variance components for animal models with several random effects using a derivative-free algorithm, 317

All-or-none traits — Probability statements about the transmitting ability of progeny-tested sires for an all-or-none trait with an application to twinning in cattle, 359

Allopatry — Selection in sympatric populations of *Cepaea*, 269

Allozyme polymorphism — Selection of allozyme genotypes of two species of marine gastropods (genus *Littorina*) in experiments of environmental stress by nonionic detergent and crude oil-surfactant mixtures, 295

Animal breeding — Use of sparse matrix absorption in animal breeding, 457

Animal genetics — Likelihood inferences in animal breeding under selection: a missing-data theory view point under selection: a missing-data theory view point, 399

Animal model — Restricted maximum likelihood to estimate variance components for animal models with several random effects using a derivative-free algorithm, 317

α_{s1}-casein — α_{s1}-Cn^{D}, another allele associated with a decreased synthesis rate at the caprine α_{s1}-casein locus, 127 — Different rates of synthesis of whey protein and casein by alleles of the β-lactoglobulin and α_{s1}-casein locus in cattle, 547

Associated responses — Selection for acrolein tolerance in *Drosophila melanogaster*, 253

B

Bayesian methods — Probability statements about the transmitting ability of progeny-tested sires for an all-or-none trait with an application to twinning in cattle, 359

Best linear unbiased prediction — Marker assisted selection using best linear unbiased prediction, 467

Beta binomial model — Probability statements about the transmitting ability of progeny-tested sires for an all-or-none trait with an application to twinning in cattle, 359

Binary trait methods — Estimation of covariance components between one continuous and one binary trait, 303

Body weight — Genetic study of *Dandarawy* chickens. I. Heritabilities and genetic correlations of body weight and weight gain, 81

Bovine somatotropin — Impact of the use of bovine somatotropin (BST) on dairy cattle selection, 479

Breed comparison — Genetic parameters for first lactation dairy traits in the *Alpine* and *Saanen* goat breeds, 205

Brown Tsaiya — Genetic parameters of some growth and egg production traits in laying Brown Tsaiya *(Anas platyrynchos)*, 377

C

Carcass — Genetic study on *Dandarawy* chickens. II. Heritability of live and carcass measurements, 199

α_{s1}-Casein — α_{s1}-Cn^{D}, another allele associated with a decreased synthesis rate at the caprine α_{s1}-casein locus, 127 — Different rates of synthesis of whey protein and casein by alleles of the β-lactoglobulin and α_{s1}-casein locus in cattle, 547

Cattle — Different rates of synthesis of whey protein and casein by alleles of the β-lactoglobulin and α_{s1}-casein locus in cattle, 547 — Identification of chromosomes involved in a Robertsonian translocation in cattle, 555

Cattle selection — Impact of the use of bovine somatotropin (BST) on dairy cattle selection, 479

Cepaea — Selection in sympatric populations of *Cepaea,* 269

Chicken — Growth characteristics and lipid distribution in two lines of chicken selected for low or high abdominal fat, 69 — Physiological studies on the sex-linked dwarfism of the fowl: a review on the search for the gene's primary effect, 217

Chinese breeds — Estimation of crossbreeding parameters between *Large White* and *Meishan* porcine breeds. I. Reproductive performance, 507

Chromosome — R-banding pattern of the prometaphase chromosomes of the domestic sheep *Ovis aries* L., 1 — A new chromosomal variant in domestic sheep (*Ovis aries* L.) *(in French)*, 11 — Identification of chromosomes involved in a Robertsonian translocation in cattle, 555

Climatic selection — Selection in sympatric populations of *Cepaea,* 269

Covariance — Estimation of covariance components between one continuous and one binary trait, 303

Crossbreeding — Productivity and morbidity of rabbit breeding does: a comparison of 4 genotypes *(in French)*, 49

Crossbreeding parameters — Estimation of crossbreeding parameters between *Large White* and *Meishan* porcine breeds. I. Reproductive performance, 507

Crustacea — Evolutionary genetics and systematics of the complex of species *Sphaeroma hookeri* Leach, *Sphaeroma levii* Argano and *Sphaeroma rugicauda* Leach (Crustacea, Isopoda Flabellifera). 2. Genetic variability, genetic distances and diagnostic alleles *(in French)*, 131

D

Dairy cattle — The genetic response possible in dairy cattle improvement by setting up a multiple ovulation and embryo transfer (MOET) nucleus scheme, 169 — Optimum truncation points for independent culling level selection on a multivariate normal distribution, with an application to dairy cattle selection, 185 — Restricted maximum likelihood estimation of genetic parameters for the first three lactations in the *Montbéliarde* dairy cattle breed, 493

Dairy goat — Genetic parameters for first lactation dairy traits in the *Alpine* and *Saanen* goat breeds, 205

***Dandarawy* chicken** — Genetic study of *Dandarawy* chickens. I. Heritabilities and genetic correlations of body weight and weight gain, 81 — Genetic study on *Dandarawy* chickens. II. Heritability of live and carcass measurements, 199

Derivative — Restricted maximum likelihood to estimate variance components for animal models with several random effects using a derivative-free algorithm, 317

Developmental success — Genetic variability of host-parasite relationship traits: utilization of isofemale lines in a *Drosophila simulans* parasitic wasp, 437

Distillery — A comparison of the level of enzyme polymorphism in cosmopolitan *Drosophila* species between populations collected in distilleries and in their surroundings in Hungary, 147

Domestic sheep — R-banding pattern of the prometaphase chromosomes of the domestic sheep *Ovis aries* L., 1

Drosophila — Activity of enzymes and fitness variation, 17 — Variation of sperm length and heteromorphism in drosophilid species, 283

Drosophila ananassae — Rare-male mating advantage in *Drosophila ananassae*, 447

Drosophila hydei — A comparison of the level of enzyme polymorphism in cosmopolitan *Drosophila* species between populations collected in distilleries and in their surroundings in Hungary, 147

Drosophila melanogaster — Linkage disequilibrium in French natural populations of *Drosophila melanogaster*, 33 — Presence of the deleted *hobo* element *Th* in Eurasian populations of *Drosophila melanogaster*, 107 — Changes in the distribution of the genetic variance of a quantitative trait in small populations of *Drosophila melanogaster*, 159 — Selection for acrolein tolerance in *Drosophila melanogaster*, 253 — Genetic architecture of tolerance to acrolein in *Drosophila melanogaster*, 415 — Mechanisms of resistance to acrolein in *Drosophila melanogaster*, 427

***Drosophila simulans* parasitoids** — Genetic variability of host-parasite relationship traits: utilization of isofemale lines in a *Drosophila simulans* parasitic wasp, 437

Dwarfism — Physiological studies on the sex-linked dwarfism of the fowl: a review on the search for the gene's primary effect, 217

E

Economical trait — Genetic parameters of some growth and egg production traits in laying Brown Tsaiya *(Anas platyrynchos)*, 377

Eggshell color — Effects associated with the "white egg shell" mutation in the Japanese quail *(in French)*, 385

Embryo transfer — The genetic response possible in dairy cattle improvement by setting up a multiple ovulation and embryo transfer (MOET) nucleus scheme, 169

Encapsulation escape — Genetic variability of host-parasite relationship traits: utilization of isofemale lines in a *Drosophila simulans* parasitic wasp, 437

Endocrinology — Physiological studies on the sex-linked dwarfism of the fowl: a review on the search for the gene's primary effect, 217

Enzymatic loci — Linkage disequilibrium in French natural populations of *Drosophila melanogaster*, 33

Enzyme activities — Activity of enzymes and fitness variation, 17

Enzyme polymorphism — A comparison of the level of enzyme polymorphism in cosmopolitan *Drosophila* species between populations collected in distilleries and in their surroundings in Hungary, 147

Estimation — Estimation of covariance components between one continuous and one binary trait, 303

F

Fat — Genetic parameters for first lactation dairy traits in the *Alpine* and *Saanen* goat breeds, 205

Fat and protein contents — Restricted maximum likelihood estimation of genetic parameters for the first three lactations in the *Montbéliarde* dairy cattle breed, 493

Fertility — Selection for prolificacy in the pig. I. Results of an eleven-generation selection experiment *(in French)*, 93

Fitness — Selection experiment for post-weaning growth rate in rabbits *(in French)*, 527

Fitness components — Activity of enzymes and fitness variation, 17

Free approach — Restricted maximum likelihood to estimate variance components for animal models with several random effects using a derivative-free algorithm, 317

French natural population — Linkage disequilibrium in French natural populations of *Drosophila melanogaster*, 33

G

Gene — Effects associated with the "white egg shell" mutation in the Japanese quail *(in French)*, 385

Gene expression — Different rates of synthesis of whey protein and casein

by alleles of the β-lactoglobulin and α_{S1}-casein locus in cattle, 547

Gene order — Position of the *Phi* and *Po2* loci in the *Hal* linkage group in pigs, 119

Gene selection — Species *versus* gene selection, 247

Genetic architecture — Genetic architecture of tolerance to acrolein in *Drosophila melanogaster*, 415

Genetic correlation — Genetic study of *Dandarawy* chickens. I. Heritabilities and genetic correlations of body weight and weight gain, 81

Genetic distances — Evolutionary genetics and systematics of the complex of species *Sphaeroma hookeri* Leach, *Sphaeroma levii* Argano and *Sphaeroma rugicauda* Leach (Crustacea, Isopoda Flabellifera). 2. Genetic variability, genetic distances and diagnostic alleles *(in French)*, 131

Genetic evaluation — Probability statements about the transmitting ability of progeny-tested sires for an all-or-none trait with an application to twinning in cattle, 359

Genetic gain — The genetic response possible in dairy cattle improvement by setting up a multiple ovulation and embryo transfer (MOET) nucleus scheme, 169 — Optimum truncation points for independent culling level selection on a multivariate normal distribution, with an application to dairy cattle selection, 185 — Impact of the use of bovine somatotropin (BST) on dairy cattle selection, 479

Genetic marker — Marker assisted selection using best linear unbiased prediction, 467

Genetic parameter — Selection for prolificacy in the pig. I. Results of an eleven-generation selection experiment *(in French)*, 93 — Genetic parameters for first lactation dairy traits in the *Alpine* and *Saanen* goat breeds, 205 — Genetic parameters of some growth and egg production traits in laying Brown Tsaiya *(Anas platyrynchos)*, 377 — Restricted maximum likelihood estimation of genetic parameters for the first three lactations in the *Montbéliarde* dairy cattle breed, 493

Genetic variability — Evolutionary genetics and systematics of the complex of species *Sphaeroma hookeri* Leach, *Sphaeroma levii* Argano and *Sphaeroma rugicauda* Leach (Crustacea, Isopoda Flabellifera). 2. Genetic variability, genetic distances and diagnostic alleles *(in French)*, 131 — Changes in the distribution of the genetic variance of a quantitative trait in small populations of *Drosophila melanogaster*, 159 — Genetic variability of host-parasite relationship traits: utilization of isofemale lines in a *Drosophila simulans* parasitic wasp, 437

Genotype-environment interaction — Genetic architecture of tolerance to acrolein in *Drosophila melanogaster*, 415

Goat — α_{S1}-Cn^{D}, another allele associated with a decreased synthesis rate at the caprine α_{S1}-casein locus, 127

Growth — Growth characteristics and lipid distribution in two lines of chicken selected for low or high abdominal fat, 69

H

Halothane sensitivity — Position of the *Phi* and *Po2* loci in the *Hal* linkage group in pigs, 119

Health — Productivity and morbidity of rabbit breeding does: a comparison of 4 genotypes *(in French)*, 49

Heritability — Genetic study of *Dandarawy* chickens. I. Heritabilities and genetic correlations of body weight and weight gain, 81 — Genetic study on *Dandarawy* chickens. II. Heritability of live and carcass measurements, 199

Hobo — Presence of the deleted *hobo* element *Th* in Eurasian populations of *Drosophila melanogaster*, 107

Host infestation — Genetic variability of host-parasite relationship traits: utilization of isofemale lines in a *Drosophila simulans* parasitic wasp, 437

Hybridization *(in situ)* — Localization of leucocyte interferon gene in the q2.5 region of pig chromosome1 by *in situ* hybridization, 249

I

Inbreeding — Changes in the distribution of the genetic variance of a quantitative trait in small populations of *Drosophila melanogaster*, 159

Independent culling level selection — Optimum truncation points for independent culling level selection on a multivariate normal distribution, with an application to dairy cattle selection, 185

Isopoda — Evolutionary genetics and systematics of the complex of species *Sphaeroma hookeri* Leach, *Sphaeroma levii* Argano and *Sphaeroma rugicauda* Leach (Crustacea, Isopoda Flabellifera). 2. Genetic variability, genetic distances and diagnostic alleles *(in French)*, 131

J

Japanese quail — Effects associated with the "white egg shell" mutation in the Japanese quail *(in French)*, 385

L

β-Lactoglobulin — Different rates of synthesis of whey protein and casein by alleles of the β-lactoglobulin and α_{s1}-casein locus in cattle, 547

Laying duck — Genetic parameters of some growth and egg production traits in laying Brown Tsaiya *(Anas platyrynchos)*, 377

Leukocyte interferon — Localization of leucocyte interferon gene in the q2.5 region of pig chromosome1 by *in situ* hybridization, 249

Likage group — Position of the *Phi* and *Po2* loci in the *Hal* linkage group in pigs, 119

Likelihood inference — Likelihood inferences in animal breeding under selection: a missing-data theory view point under selection: a missing-data theory view point, 399

Linkage disequilibrium — Linkage disequilibrium in French natural populations of *Drosophila melanogaster*, 33

Lipid — Growth characteristics and lipid distribution in two lines of chicken selected for low or high abdominal fat, 69

Litter size — Selection experiment for post-weaning growth rate in rabbits *(in French)*, 527

M

Major gene — Comparison of four statistical methods for detection of a major gene in a progeny test design, 341

Marine gastropod — Selection of allozyme genotypes of two species of marine gastropods (genus *Littorina*) in experiments of environmental stress by nonionic detergent and crude oil-surfactant mixtures, 295

Marker-assisted selection — Marker assisted selection using best linear unbiased prediction, 467

Maternal effects — Effects associated with the "white egg shell" mutation in the Japanese quail *(in French)*, 385

Maximum likelihood — Restricted maximum likelihood estimation of genetic parameters for the first three lactations in the *Montbéliarde* dairy cattle breed, 493

Milk protein genes — Different rates of synthesis of whey protein and casein by alleles of the β-lactoglobulin and α_{s1}-casein locus in cattle, 547

Milk yield — Impact of the use of bovine somatotropin (BST) on dairy cattle selection, 479 — Restricted maximum likelihood estimation of genetic parameters for the first three lactations in the *Montbéliarde* dairy cattle breed, 493

Missing data — Likelihood inferences in animal breeding under selection: a missing-data theory view point under selection: a missing-data theory view point, 399

Mortality — Productivity and morbidity of rabbit breeding does: a comparison of 4 genotypes *(in French)*, 49

Multiple ovulation — The genetic response possible in dairy cattle improvement by setting up a multiple

ovulation and embryo transfer (MOET) nucleus scheme, 169

Multistage selection — Optimum truncation points for independent culling level selection on a multivariate normal distribution, with an application to dairy cattle selection, 185

Multivariate normal distribution — Optimum truncation points for independent culling level selection on a multivariate normal distribution, with an application to dairy cattle selection, 185

N

Numerical methods — Use of sparse matrix absorption in animal breeding, 457

O

Obesity — Growth characteristics and lipid distribution in two lines of chicken selected for low or high abdominal fat, 69

Organic pollution — Selection of allozyme genotypes of two species of marine gastropods (genus *Littorina*) in experiments of environmental stress by nonionic detergent and crude oil-surfactant mixtures, 295

Performance traits — Effects associated with the "white egg shell" mutation in the Japanese quail *(in French)*, 385

Phenotypic correlation — Genetic study on *Dandarawy* chickens. II. Heritability of live and carcass measurements, 199

Pig — Selection for prolificacy in the pig. I. Results of an eleven-generation selection experiment *(in French)*, 93 — Position of the *Phi* and *Po2* loci in the *Hal* linkage group in pigs, 119 — Localization of leucocyte interferon gene in the q2.5 region of pig chromosome1 by *in situ* hybridization, 249 — Estimation of crossbreeding parameters between *Large White* and *Meishan* porcine breeds. I. Reproductive performance, 507

Polymorphism — α_{S1}-Cn^{D}, another allele associated with a decreased synthesis rate at the caprine α_{S1}-casein locus, 127 — Selection in sympatric populations of *Cepaea*, 269

Populations — Presence of the deleted *hobo* element *Th* in Eurasian populations of *Drosophila melanogaster*, 107

Post-weaning growth rate — Selection experiment for post-weaning growth rate in rabbits *(in French)*, 527

Prediction of genetic merits — Use of sparse matrix absorption in animal breeding, 457

Productivity — Productivity and morbidity of rabbit breeding does: a comparison of 4 genotypes *(in French)*, 49

Prolificacy — Selection for prolificacy in the pig. I. Results of an eleven-generation selection experiment *(in French)*, 93

Protein — Genetic parameters for first lactation dairy traits in the *Alpine* and *Saanen* goat breeds, 205

Q

Quantitative variations — α_{S1}-Cn^{D}, another allele associated with a decreased synthesis rate at the caprine α_{S1}-casein locus, 127

R

Rabbit — Productivity and morbidity of rabbit breeding does: a comparison of 4 genotypes *(in French)*, 49 — Selection experiment for post-weaning growth rate in rabbits *(in French)*, 527

Rare male mating advantage — Rare-male mating advantage in *Drosophila ananassae*, 447

RBA-banding — R-banding pattern of the prometaphase chromosomes of the domestic sheep *Ovis aries* L., 1

Reproductive traits — Estimation of crossbreeding parameters between *Large White* and *Meishan* porcine breeds. I. Reproductive performance, 507

Resistance mechanisms — Mechanisms of resistance to acrolein in *Drosophila melanogaster*, 427

Restricted maximum likelihood — Restricted maximum likelihood to estimate variance components for animal models with several random

effects using a derivative-free algorithm, 317

Robertsonian translocation — Identification of chromosomes involved in a Robertsonian translocation in cattle, 555

S

S-Hal-Phi-H-Po2-Pgd — Position of the *Phi* and *Po2* loci in the *Hal* linkage group in pigs, 119

Segregation analysis — Comparison of four statistical methods for detection of a major gene in a progeny test design, 341

Selected data — Likelihood inferences in animal breeding under selection: a missing-data theory view point under selection: a missing-data theory view point, 399

Selection — Selection for acrolein tolerance in *Drosophila melanogaster*, 253 — Selection of allozyme genotypes of two species of marine gastropods (genus *Littorina*) in experiments of environmental stress by nonionic detergent and crude oil-surfactant mixtures, 295 — Selection experiment for post-weaning growth rate in rabbits *(in French)*, 527

Selection experiment — Selection for prolificacy in the pig. I. Results of an eleven-generation selection experiment *(in French)*, 93Selection for prolificacy in the pig. I. Results of an eleven-generation selection experiment *(in French)*, 93

Selection for rate of development — Activity of enzymes and fitness variation, 17

***Sepia* and *cardinal* mutants** — Rare-male mating advantage in *Drosophila ananassae*, 447

Sex-linked effect — Genetic study of *Dandarawy* chickens. I. Heritabilities and genetic correlations of body weight and weight gain, 81

Sex-linked gene — Physiological studies on the sex-linked dwarfism of the fowl: a review on the search for the gene's primary effect, 217

Sheep — A new chromosomal variant in domestic sheep (*Ovis aries* L.) *(in French)*, 11

Sparse matrix — Use of sparse matrix absorption in animal breeding, 457

Species — Species *versus* gene selection, 247

Sperm evolution — Variation of sperm length and heteromorphism in drosophilid species, 283

Sperm heteromorphism — Variation of sperm length and heteromorphism in drosophilid species, 283

Sperm length — Variation of sperm length and heteromorphism in drosophilid species, 283

Sphaeroma — Evolutionary genetics and systematics of the complex of species *Sphaeroma hookeri* Leach, *Sphaeroma levii* Argano and *Sphaeroma rugicauda* Leach (Crustacea, Isopoda Flabellifera). 2. Genetic variability, genetic distances and diagnostic alleles *(in French)*, 131

Statistical test — Comparison of four statistical methods for detection of a major gene in a progeny test design, 341

Sympatry — Selection in sympatric populations of *Cepaea,* 269

T

Threshold model — Probability statements about the transmitting ability of progeny-tested sires for an all-or-none trait with an application to twinning in cattle, 359

Toxic tolerance — Selection for acrolein tolerance in *Drosophila melanogaster*, 253 — Genetic architecture of tolerance to acrolein in *Drosophila melanogaster*, 415 — Mechanisms of resistance to acrolein in *Drosophila melanogaster*, 427

Transposable elements — Presence of the deleted *hobo* element *Th* in Eurasian populations of *Drosophila melanogaster*, 107

V

Variance components — Estimation of covariance components between one continuous and one binary trait, 303 — Restricted maximum likelihood to

estimate variance components for animal models with several random effects using a derivative-free algorithm, 317

Variant — A new chromosomal variant in domestic sheep (*Ovis aries* L.) *(in French)*, 11

W

Weight gain — Genetic study of *Dandarawy* chickens. I. Heritabilities and genetic correlations of body weight and weight gain, 81